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Title : Are You My Mother? Successful Rehabilitation of Sea Otter Pups by Captive Female Surrogates.

Category : Conservation

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Abstract : Since 1984 Monterey Bay Aquarium Sea Otter Research and Conservation (SORAC) program has treated more than 70 newborn pups that have stranded throughout the southern sea otter range. To compensate for the absence of a wild sea otter mother during a six-month dependency, pups rehabilitated for release to the wild have been raised by methods that have relied heavily on human care, contributing to release failures. Sixty-five percent (65%) of unsuccessful pup releases result from failures to reintegrate with the wild population and avoid interactions with humans. To address these failures, SORAC initiated a sea otter surrogate program, pairing stranded pups with captive adult females that adopt the pups as their own. We predicted that stranded pups raised by surrogate females would develop foraging skills at a younger age, and would have greater success re-acclimating to the wild compared with pups rehabilitated by traditional methods. To test these predictions, we compared behavior development and release success of surrogate-reared pups (n=4, 2001-2002) with non-surrogate reared pups (n=6, 1998-2000). As a result, surrogate pups began diving and foraging independently on live prey at a younger age, and had greater success (100% vs. 50%) readapting to the wild than pups reared without surrogates. The surrogate program, therefore, was less labor-intensive and more effective than traditional rehabilitation methods. In addition to these practical advantages, the surrogate program may also benefit research and conservation objectives for southern sea otters by providing means to (1) better understand pup behavioral and physiological development, (2) measure energetic costs of rearing pups to indicate why survival rate of prime-aged females is declining, (3) successfully reintroduce sea otters in the event of a catastrophic decline in the wild population, (4) engage and educate the public regarding threats to sea otters and their near shore marine environment.